Data

Engines	Valve	Height "h" of valve reta (Fig.) when new	limit value	Adjusting angle "a" for machining valve	Valve stem dia.	Valve seat plating	Filled-in sodium	Valve length
Intake valves								
115.923/926 115.938/939	44.30 44.10	- 1.5	1.0	45° + 15′	8.97 8.95	with	without	128
115.951/954	47.10 46.90					without		
Exhaust valves								
115.923/926 115.938/939	37.20 37.00	2.5	2.0	45 ⁰ + 15'	10.96 10.94	with	with	113.2
115.951/954								
Width of valve seat					intake 1.8–3		exhaust 1.5-2.5	
Permissible runout on valve stem and valve seat max.							0.03	

Conventional tools

Valve cone grinder

or

Valve cone machining tool

e.g. made by Krupp, D-5309 Meckenheim model VS

e.g. made by Hunger, D-8000 München 70 type VKDR1, order No. 203.00.200

Note

Exhaust valves are filled with sodium!

When scrapping valves, pay attention to safety rules. Do not melt valves filled with sodium since there is a risk of explosion and do not use such valves for making tools (punch etc.), without first removing filled-in sodium.

Be careful when removing sodium from valves, since sodium mixed with water and watery solutions reacts heavily explosive, while the resulting hydrogen gas may cause fires.

Sodium from cut-up or broken-up valves can be neutralized in the mixture comprising 2 liters spirit of alcohol and 1 liter of water put into a vessel and placed in the open air.

Valves filled with sodium can be collected and shipped for neutralizing to: Garantieprüfstelle Werk Stuttgart-Untertürkheim.

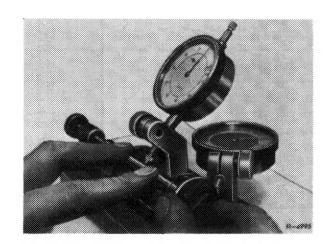
Checking and machining

1 Clean valves and check visually.

Valves with a burnt valve retainer, with unsufficient height "h" of valve retainer and valves with worn-out or scored valve stem should be replaced.



2 Measure runout on valve stem. If runout exceeds 0.03 mm, replace valve.



3 Machine valve seat.

Refer to operating instructions of machining tool and make sure of $45^{\rm o}$ adjusting angle.

4 Measure runout on valve seat and height "h" of valve retainer.

When the limit values are attained, replace valve.

